Intermediate rate applications of punctured convolutional codes for 8PSK trellis modulation over satellite channels

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Abstract of **TW 435009 (B)**

A method and apparatus are provided for convolutionally encoding digital data with a rate 5/8 convolutional code. A standard rate1/2 convolutional code is punctured to rate 5/8 using a puncture map of {11111, 11100} and octal generators 133, 171 wherein the constraint length K=7. An incoming data stream is processed using the rate 5/8 code. In another embodiment, a rate 1/3 convolutional code is punctured to rate 5/8 using a puncture map of {00000, 11101, 11110} and octal generators 117, 135, 161 wherein the constraint length K=7.